P.02

Amendment, GAU 2832, Ser. No. 09/868,907

IN THE CLAIMS

1. (Amended) A magnet roller (10, 40, 50, 60) having joining faces for joining adjacent magnet pieces to each other, comprising a plurality of magnet pieces (12, 14, 16, 18, 42, 48, 51, 52, 53, 54, 55, 56, 62, 68) mounted at the periphery of a shaft (20) by joining at said joining faces to each other,

wherein ; in this magnet roller (10, 40, 50, 60), peaks (32a, 34a, 36a, 38a) of magnetic poles (32, 34, 36, 38, 49a, 49b, 49c, 49d) are generated on the lines of extension of where the joining faces join to each other (13, 15, 17, 19, 45) by setting the directions of orientation magnetization (22, 24, 26, 28, 44, 49) of adjacent each said magnet piece, pieces (12, 14, 16, 18, 42, 48) facing the relative to the adjacent joining face, at an acute angle, faces (13, 15, 17, 19, 45),

by converging the directions of orientation magnetization towards an outside of the magnet roller.

the respective joining faces (13, 15, 17, 19, 45) of the plurality that are adjacent to each other, of at least one set of adjacent magnet pieces, (12, 14, 16, 18, 42, 48, 51, 52, 53, 54, 55, 56, 62, 68) being made to coincide with roller radial directions.

2-3 (canceled)

4. (new) A magnet roller having joining faces for joining adjacent magnet pieces to each other, comprising a plurality of magnet pieces mounted at the periphery of a shaft by joining at said joining faces to each other,

wherein peaks of magnetic poles are generated on lines of extension where the joining faces join to each other by setting the directions of orientation magnetization of each said magnet piece, relative to the adjacent joining face, at an acute angle,

by setting the sum of the angles of the orientation magnetization directions of said each magnet piece relative to the respective joining face at less than 90°,

the respective joining faces that are adjacent to each other, of at least one set of adjacent magnet pieces, being made to coincide with roller radial directions.



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- 5. (new) The magnet roller according to claim 4, wherein the sum of the angles of the orientation magnetization directions of said each magnet piece relative to the respective joining face is set at 80° or less.
- 6. (new) The magnet roller according to claim 4, wherein the sum of the angles of the orientation magnetization directions of said each magnet piece relative to the respective joining face is set at 30° to 80°.
- 7. (new) The magnet roller according to claim 4,
 wherein the sum of the angles of the orientation magnetization directions of said each
 magnet piece relative to the respective joining face is set at 60° to 80°.
- 8. (new) The magnet roller according to claim 1, wherein the orientation magnetization directions of the adjacent magnetic pieces converge towards an outside apex of the joining face.

